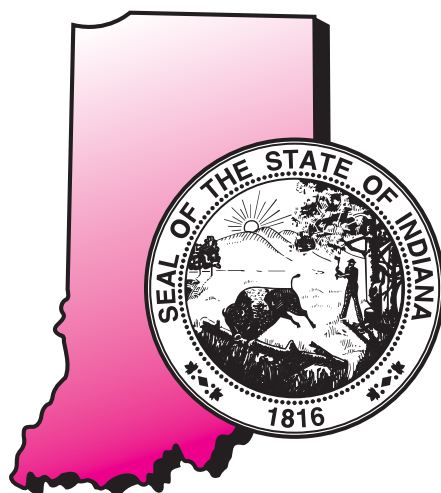


# ***ISTEP+* Fall 2008**

Indiana Statewide Testing for Educational Progress

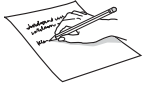
English/Language Arts • Mathematics  
**Grade 8**



Indiana Department of Education

Web Version

Use only a Number 2 pencil to respond to the questions in this book. Responses written in pen CANNOT be scored.



Whenever you see this icon, you will be doing a writing activity. Your writing will not be scored on your personal opinions or choices, but will be scored objectively on

- how clearly you address the prompt
- how well you organize your ideas
- how effectively you express yourself
- how consistently you use correct paragraphing, grammar, spelling, and punctuation

Be sure to use the rules of Standard English. Standard English is the English commonly used in formal writing. It does not include slang or jargon.

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# Test 3: English/Language Arts

## First Day of School

Read the writing prompt below and complete the writing activity.

Suppose your younger neighbor or relative is about to start middle school, but on the first day he or she refuses to go. What would you say to persuade this person to go to school?

Write a persuasive essay in which you explain to your neighbor or relative why he or she should go to school. Include persuasive reasons for going to school. Consider academic, social, and extracurricular activities. Also, think about why he or she does not want to go to school. In your persuasive essay, respond to this person's reasons for not wanting to go to school.

Be sure to include

- an explanation of why your younger neighbor or relative should go to school
- persuasive reasons why he or she would benefit from going to school
- a response to his or her concerns about going to school
- an introduction, a body, and a conclusion to your persuasive essay

Go On





Use the Pre-Writing/Planning space or additional paper for notes, lists, webs, outlines, or anything else that might help you plan your writing. Then write your persuasive essay on the lined pages. Be sure to write neatly. Using the Editing Checklist on page 9, check your writing for correct paragraphing, grammar, spelling, punctuation, and the use of Standard English.

**NOTE:** Only your writing on the lined pages in this book will be scored.

## Pre-Writing/Planning

Go On



Pre-Writing/Planning



DO NOT WRITE HERE

This image shows a full page of blank, lined paper. It features approximately 20 evenly spaced horizontal black lines across its entire width, typical of notebook or legal stationery. The background is a solid off-white color, and there are no margins, text, or other markings present.



DO NOT WRITE HERE

DO NOT WRITE HERE

Go On



## Test 3

DO NOT WRITE HERE ↑

DO NOT WRITE HERE ↓

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**DO NOT WRITE HERE** ↑

DO NOT WRITE HERE →

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and extend across the width of the page. There are no margins, text, or other markings on the paper.

## Editing Checklist

**STOP! \_ \_ \_ \_ STOP! \_ \_ \_ \_ STOP! \_ \_ \_ \_ STOP! \_ \_ \_ \_ STOP!**

Use only a Number 2 pencil to respond to the questions in this book. Responses written in pen CANNOT be scored.



Whenever you see this icon, you will be doing a writing activity. Your writing will not be scored on your personal opinions or choices, but will be scored objectively on

- how clearly you address the prompt
- how well you organize your ideas
- how effectively you express yourself
- how consistently you use correct paragraphing, grammar, spelling, and punctuation

Be sure to use the rules of Standard English. Standard English is the English commonly used in formal writing. It does not include slang or jargon.

# Test 4: English/Language Arts

For Test 4, you will read an excerpt from a book and an article. You will answer questions based on each passage. Then you will do some writing on a related topic.

Think about a time when you went to a place where you had never been before. Did you feel like a stranger or were you excited to be there? The first passage you will read, “Popcorn Days and Buttermilk Nights,” is about a teenage boy who comes to the country to live with relatives for the summer. After you read the passage, you will answer some questions about what you have read.

Now read “Popcorn Days and Buttermilk Nights” and do Numbers 1 through 6. You may look back at the passage as often as you like.



# Popcorn Days and Buttermilk Nights



by Gary Paulsen

---

At this point in the book, Uncle David is bringing the teenager to the farm.

---

“It’s two miles to home,” he said, pulling the team left on a gravel road just east of the depot.<sup>1</sup> “Nice ride in summer. Sometimes I walk.” He was cutting his words as if he didn’t want to talk. I felt the same way. It was such a beautiful evening, with the air soft as a warm blanket and the wagon just pulling along with little creaks and groans and the smell-scrub<sup>2</sup> of the harness pulling, that talking seemed a waste.

The road was fairly smooth. A horse-drawn grader had evened it down from the ruts of spring thaw. The ditches had standing water, and now and again a set of mallards<sup>3</sup> would get up, flying ahead of us to land in the ditch up a ways until we came on them again. The woods back of the fields were a deep bright green that made me think of pictures I’d seen of Ireland in a *National Geographic* magazine. It was all so different from where I lived, from Minneapolis, that I was hard put to take it all in. This was where my mother was born, and the people I would meet were supposed to be my family, but I knew nothing of them,

---

<sup>1</sup>**depot:** a railroad or bus station

<sup>2</sup>**smell-scrub:** an image created by the author to describe the smells and sounds of a horse-drawn wagon

<sup>3</sup>**mallards:** wild ducks

Go On



nothing of this country. I didn't even know their names. We had never talked of them at home, partly because my father was from Kansas and didn't like the woods up north and partly because my mother had left the farm early and gone away to the city. Their life was so involved that they seldom talked of up north.

I was from the gray city with its alleys of trash and rusted iron and hidden places in back of billboards. It was all hard edges and brittle talk—all city stone and noise and light that didn't go away at night, but flashed dull and blue in the windows, over and over. I was from a place where even when some green plant did show, it was covered with a film of dust.

And here, on this ride from the blacksmith shop down two miles of country road to David's home I was besieged<sup>4</sup> by such color, such richness and fullness and thickness, that I became almost ill with it—the way you become ill from eating too many éclairs, too much pastry. My throat closed with it, my mind closed with it, so that I had to look out over the horses and down the road, just across the shiny black backs at the gravel until my mind could take it all in.

David was watching me, and he laughed. "Pretty much, ain't it then? And if you think this is something, wait'll you see fall. Color just *blows* at you. Gets so you gotta close your eyes every so often to catch up."

I nodded, but didn't say anything—my throat was still a little tight—and we rode a full half mile with just the sounds of the wagon, the harness, and the horses coming up around us. Even those sounds were rich—creaks of oiled leather, fat with grease and shiny with copper rivets; shuffles and rubs of old, worn, fitted wood that made groans of music; jingles coming up from the trace chains;<sup>5</sup> and the muffled *flit-OP, flit-OP* of the hooves in the gravel.

It made a feeling, all of it, as if there could never be anything wrong or ugly in the world. That is not an easy thing to accept. And here it all was, around and through me. It was all I could do to stay on the wagon seat and not jump out, run back to town, and take the next bus back home because this, this was so much.

But I stayed and the feeling passed, worked off as the country came in. When we'd gone a mile and a half, David nudged ahead with his chin and said "Home." I looked down the road, and in the distance, on the left, I could see a white frame house and to the left of that, a large red barn.

<sup>4</sup>**besieged:** overwhelmed

<sup>5</sup>**trace chains:** the chains that connect the horse's harness to the vehicle being pulled

1 Read this statement from the passage.

**It was such a beautiful evening, with the air soft as a warm blanket.**

The author MOST LIKELY compares the air to a warm blanket to show that the narrator is

- ☐ tired and wants to rest
- ☐ surprised by the weather
- ☐ comforted by the country
- ☐ sad and wants to go home

2 In the passage, the narrator compares the city with the country. For example, he says that the city is gray but the country is green. Using details from the passage, explain TWO other ways that the city and country are different.

City	Country

Go On



3 Which pair of words BEST describe Uncle David?

- ☐ upset but forgiving
- ☐ quiet but understanding
- ☐ impatient but respectful
- ☐ unaware but enthusiastic

4 Read these sentences from the passage.

**It made a feeling, all of it, as if there could never be anything wrong or ugly in the world. That is not an easy thing to accept.**

What does the narrator mean by “it”?

---

Why is the feeling difficult for the narrator to accept?

---

---

---



5 Read this sentence from the passage.

**But I stayed and the feeling passed, worked off as the country came in.**

What does this sentence show about the narrator?

- ☐ He is becoming aware of the importance of family.
- ☐ He is beginning to relax and consider his surroundings.
- ☐ He has decided to erase the memory of his life in the city.
- ☐ He has realized that it would be rude to leave at this point.

6 What is a MAIN theme of this passage?

- ☐ dependability of relatives
- ☐ adjustment to new situations
- ☐ difficulty in communication
- ☐ inconvenience of rural travel

Go On





# English/Language Arts

Do you have a favorite hobby or sport? Do you know how your hobby or sport became popular?

You will now read “On a Roll,” an article about the sport of skateboarding, which has grown in popularity during the past decade. After you read the article, you will answer some questions and write an essay on a related topic.

Now read “On a Roll” and do Numbers 7 through 13. You may look back at the article as often as you like.



# On a Roll

by James A. Fussell



## Skateboarding Keeps Growing in Leaps and Bounds

Scene: A crowded skate park in Overland Park, Kansas. Dozens of kids on skateboards swoosh down, over and around curved concrete blocks like so many human Hot Wheels.

A basketball court not 100 feet away stands deserted.

Scene: a new skate park in Lenexa, Kansas. Countless more skateboarders ride up, jump down and whip through a series of ramps, rails and half pipes.

A nearby baseball field is in no danger of having its perfectly manicured infield messed up.

More than ever, the skateboard is on a roll. It has not only hit the big time with TV, movies and video games, but it also dares to dream of a day it might snare a spot in the Olympics.

Skate parks are being built so rapidly today that even the sport's biggest advocates<sup>1</sup> can't keep up. *TransWorld Skateboarding* magazine counted 741 skate parks in the United States in 2001. In 1996 there were 12.

But wait. The skateboard has been around since the '60s. Why is it so popular now?

### How Big Is It?

- ▢ Up to 18 million skateboarders, double the number five years ago.
- ▢ 741 skateboarding parks in the United States, compared with 12 in 1996.
- ▢ Skateboarding icon Tony Hawk's video games are among the top-selling titles in history.

"I think a lot of it comes from the video games," said Thomas House, who was skating recently at the Lenexa, Kansas, skate park. "Cause after the video game came out it just exploded in popularity. And having it on the X-Games also escalated it."

Andrew Vega, 17, of Lenexa said skateboarding's an addictive challenge.

"It's like you have a sense of power over your board," he said. "You can tell it what to do, and if it does it then you've conquered it."

Cody Boyd, 19, came all the way from Lee's Summit, Missouri, to do his thing at the Lenexa skate park.

"That's how dedicated I am," he said.

<sup>1</sup>advocates: supporters of a cause

Go On



Boyd doesn't call skateboarding a sport. He thinks of it as an art—an art, he said, that keeps him in shape and out of trouble.

Drew Dieterich, the owner of Let it Ride, a skateboard and snowboard shop in Overland Park, knows why kids are taking to skateboarding.

"All you need is a flat space and your skateboard, and (you) can develop your game," he said. "You don't need a team or a set of obstacles. You don't need a net. You've got it all. And because it's so difficult, when you do succeed there is this incredible sense of personal accomplishment."

The result: a skateboarding boom the likes of which this country has never seen. The Sporting Goods Manufacturing Association says skateboarding has doubled its participation in the last five years. Of the 12 million to 18 million estimated riders, two-thirds are younger than 18. It's 90 percent male and largely middle class.

And here's a statistic for parents who worry that their child will be hurt riding a skateboard: A 1997 National Safety Council report showed you are less likely to be hospitalized or injured skateboarding than by playing baseball, football, hockey or volleyball. Only one in 171 participants suffers any injury that requires medical attention.

## Know the Lingo

- ▢ **Truck**—The aluminum hardware that connects the board to the wheels.
- ▢ **Ollie**—The most basic maneuver. Press down on the back of the board and jump, bringing the skateboard up with you—seemingly defying gravity.
- ▢ **Kick-flip**—You ollie, then kick the board so it flips under your feet before you land again.
- ▢ **Grind**—Jump onto a rail, curb or other object and slide along the skateboard axles.
- ▢ **Board slide**—Like a grind except instead of sliding on the axles you turn 90 degrees and slide on the middle of the board.
- ▢ **Fakie**—Riding a skateboard backward.
- ▢ **Powerslide**—Turning your skateboard 180 degrees without stopping or leaving the ground.
- ▢ **Regular footed**—Riding left foot forward.
- ▢ **Goofy footed**—Riding right foot forward.
- ▢ **Switch stance**—Changing your natural position of your feet on the board.
- ▢ **Backside**—Approaching an obstacle for a trick with your back to it.
- ▢ **Tailslide**—A type of board slide done behind the rear wheels.
- ▢ **SSBSTS**—A switch-stance backside tailslide. Figure it out yourself.

Go On



7 The author MOST LIKELY wrote this article in order to

- ☐ describe a skateboarding trend
- ☐ explain the history of skateboarding
- ☐ encourage readers to buy skateboards
- ☐ amuse readers with skateboarding stories

8 The section titled “Know the Lingo” is included to help the readers

- ☐ learn the vocabulary of skateboarding
- ☐ pretend to be experienced in skateboarding
- ☐ understand the challenges of skateboarding
- ☐ write their own stories about skateboarding

9 Read these sentences from the article.

**More than ever, the skateboard is on a roll. It has not only hit the big time with TV, movies and video games, but it also dares to dream of a day it might snare a spot in the Olympics.**

What are TWO ways that the author gives human characteristics to the sport of skateboarding in these sentences?

- 1) \_\_\_\_\_  
\_\_\_\_\_
- 2) \_\_\_\_\_  
\_\_\_\_\_

Go On



10 Why does the author point out that skateboarding is a safe sport?

---



---

What information does the author include to support this claim?

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---



---



**11** Which of these sentences from the article expresses an OPINION?

- ☐ “*TransWorld Skateboarding* magazine counted 741 skate parks in the United States in 2001.”
- ☐ “Cody Boyd, 19, came all the way from Lee’s Summit, Missouri, to do his thing at the Lenexa skate park.”
- ☐ “And because it’s so difficult, when you do succeed there is this incredible sense of personal accomplishment.”
- ☐ “The Sporting Goods Manufacturing Association says skateboarding has doubled its participation in the last five years.”

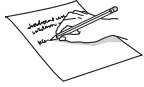
**12** Which of these would MOST LIKELY provide the most current information about the location of skateboard parks in your area?

- ☐ a guide to travel in the state
- ☐ a manufacturer of skateboarding equipment
- ☐ a Web site for a local skateboarding association
- ☐ a newsletter for a national sports safety organization

Go On



13



The author includes information that suggests skateboarding has earned the right to be a popular sport. Do you think he has or has not succeeded in convincing the reader that this is true? Why or why not?

Write an essay in which you explain your ideas. **Be sure to include at least THREE examples from the article that support whether or not the author has successfully made his point.**

You may use the space below to plan your writing. Only your writing on the lined pages in this book will be scored. Using the Editing Checklist on page 25, check your writing for correct paragraphing, grammar, spelling, punctuation, and the use of Standard English. **Remember, your essay should be well organized and have an introduction, a body, and a conclusion.**

### Pre-Writing/Planning



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**DO NOT WRITE HERE** ↑

DO NOT WRITE HERE ↓

Use only a Number 2 pencil to respond to the questions in this book. Responses written in pen CANNOT be scored.



If you see this symbol, you may use your reference sheet to help solve the problem.



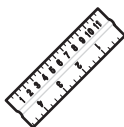
If you see this symbol, you may NOT use a calculator to solve problems in the test.



If you see this symbol, you may use a calculator to solve problems in the test.



This symbol appears at the beginning of the sections that contain gridded-response problems.



If you see this symbol, use your ruler as a straightedge or to solve the problem.



If you see this symbol, use your protractor to solve the problem.

# Test 7: Mathematics



Since you may receive partial credit for many of the problems, it is important to show ALL work in the spaces provided in this book. When you see the words **Show All Work**, be sure to

- show all the steps needed to solve the problem
- make your handwriting clear and easy to read
- write the answer on the answer line

1 Simplify:  $3(6x - 4) + 2(3x - 3)$

**Show All Work**

Answer \_\_\_\_\_



2



Yellow ribbon is on sale for 20% off the original price of \$1.85 per yard, before tax. Kaylie bought 72 INCHES of yellow ribbon.

How much did Kaylie pay for the ribbon, before tax?

**Show All Work**

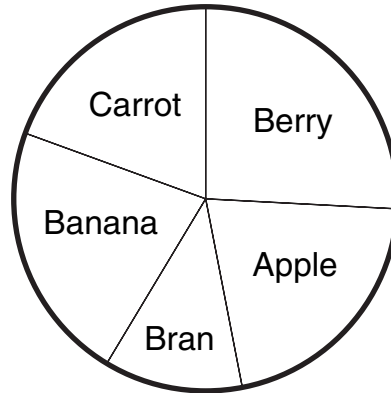
Answer \$ \_\_\_\_\_

Go On



- 3 This week, the bakery sold a total of 1,012 muffins.

**Bakery Muffins Sold**



On the lines below, explain how to estimate the total number of berry muffins sold this week. Be sure to include your estimate in your answer.

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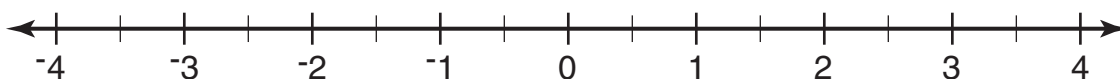
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4 Look at the numbers below.

$$\frac{22}{7} \quad -1.75 \quad \frac{1}{3} \quad -3\frac{1}{4} \quad \sqrt{16}$$

Plot each of these numbers on the number line below. Write the number above each point plotted.



5 Lake Michigan has a maximum depth of 925 feet. Lake Superior has a maximum depth that is 44% deeper than that of Lake Michigan.



What is the maximum depth, in YARDS, of Lake Superior?

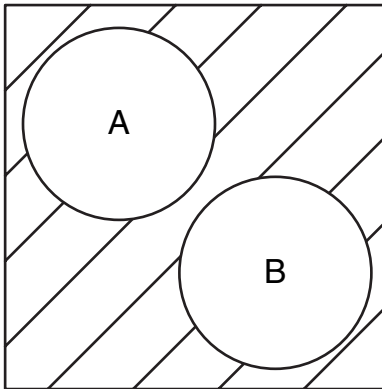
**Show All Work**

Answer \_\_\_\_\_ yards

Go On



6 Look at the diagram below.



The area of the large square is 100 square units. The area of circle A is 20 square units. Circle B is the image of circle A after a translation.

What is the area, in square units, of the striped portion of the square?

**Answer** \_\_\_\_\_ square units

On the lines below, explain how you determined the area of the striped portion of the square.

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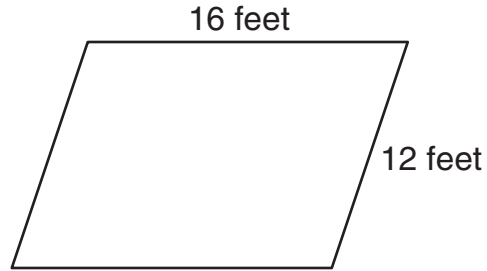
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- 7 A landscape designer is making a scale drawing of a garden in the shape of a parallelogram, as shown in the diagram below.



The designer plans to make her drawing using a scale of 1 inch equals 8 feet. What will be the length and width, in inches, of the scale drawing?

**Show All Work**

Length \_\_\_\_\_ inches

Width \_\_\_\_\_ inches



STOP! STOP! STOP! STOP! STOP!



# Test 8: Mathematics



Since you may receive partial credit for many of the problems, it is important to show ALL work in the spaces provided in this book. When you see the words **Show All Work**, be sure to

- show all the steps needed to solve the problem
- make your handwriting clear and easy to read
- write the answer on the answer line

- 1 Sherry tutors children in computer skills for \$12 per hour. After spending \$21 of the money she earned on Monday, she had \$27 left to put in her savings account.

On the line below, write a linear equation that can be used to determine how many hours ( $h$ ) Sherry tutored on Monday.

Equation \_\_\_\_\_

Now solve the equation you wrote to determine how many hours Sherry tutored on Monday.

Answer \_\_\_\_\_ hours

Go On



- 2** The City Orchestra has been invited to play 2 different pieces of music at the opening of the State Fair. The orchestra has 3 different pieces of music to choose from.

In how many different orders is it possible for the pieces of music to be played?

**Show All Work**

**Answer** \_\_\_\_\_ orders

Go On



- 3 Lilly and Nina sell cars at the Top Shelf Car Depot. Last week, Lilly's sales total was \$34,000. Nina's sales total was 40% more than Lilly's.

The dealership uses the formula below to determine each salesperson's commission ( $c$ ) based on his or her weekly sales total ( $d$ ).

$$c = 0.035d + \$55$$

How much more commission did Nina make than Lilly?

**Show All Work**

**Answer \$** \_\_\_\_\_



4 Solve the following equation for  $y$ .

$$4y - 16 = 8x$$

Equation  $y =$  \_\_\_\_\_

Find the value of  $y$  when  $x = 17$ .

Show All Work

Answer  $y =$  \_\_\_\_\_

Go On



- 5 A television station charges \$1,089 for a sixty-second commercial and \$325 for a fifteen-second commercial.

The television station also sells 10 minutes of commercial time for a total of \$10,000.

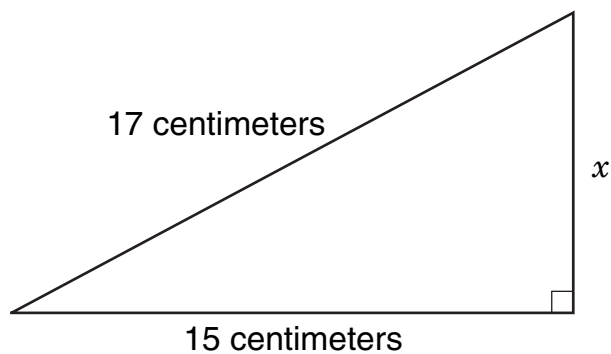
How much will an advertiser save if they purchase the 10-minute block of commercials instead of 7 sixty-second commercials and 12 fifteen-second commercials?

**Show All Work**

**Answer \$** \_\_\_\_\_



- 6 Look at the right triangle below.



What is the length, in centimeters, of side  $x$  of the triangle?

**Show All Work**

**Answer** \_\_\_\_\_ centimeters

Go On



- 7 A model boat has a length of 13 inches. One inch on the model boat represents 15 inches on the actual boat.

What is the length, in inches, of the actual boat?

**Show All Work**

**Answer** \_\_\_\_\_ inches

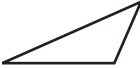




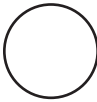

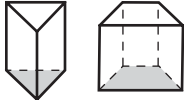



**ATTENTION!** Please do not leave your punchouts in this book.

STOP! — STOP! — STOP! — STOP! — STOP! —



# ISTEP+ Grades 7 and 8 Mathematics Reference Sheet

Shape		Formulas for Area (A) and Circumference (C)	
Triangle		$A = \frac{1}{2}bh = \frac{1}{2} \times \text{base} \times \text{height}$	
Rectangle		$A = lw = \text{length} \times \text{width}$	
Trapezoid		$A = \frac{1}{2}(b_1 + b_2)h = \frac{1}{2} \times \text{sum of bases} \times \text{height}$	
Parallelogram		$A = bh = \text{base} \times \text{height}$	
Square		$A = s^2 = \text{side} \times \text{side}$	
Circle		$A = \pi r^2 = \pi \times \text{radius} \times \text{radius}$ $C = 2\pi r = 2 \times \pi \times \text{radius}$ $\pi \approx 3.14 \text{ or } \frac{22}{7}$	
Figure		Formulas for Volume (V) and Surface Area (SA)	
Rectangular Prism		$V = lwh = \text{length} \times \text{width} \times \text{height}$ $SA = 2lw + 2hw + 2lh$ $= 2(\text{length} \times \text{width}) + 2(\text{height} \times \text{width}) + 2(\text{length} \times \text{height})$	
General Prisms		$V = Bh = \text{area of base} \times \text{height}$ $SA = \text{sum of the areas of the faces}$	
Cylinder		$V = \pi r^2 h = \pi \times \text{radius} \times \text{radius} \times \text{height}$ $SA = 2\pi r^2 + 2\pi rh$ $= 2 \times \pi \times \text{radius} \times \text{radius} + 2 \times \pi \times \text{radius} \times \text{height}$ $\pi \approx 3.14 \text{ or } \frac{22}{7}$	

## Conversions

1 yard = 3 feet = 36 inches  
 1 mile = 1,760 yards = 5,280 feet  
 1 acre = 43,560 square feet  
 1 hour = 60 minutes  
 1 minute = 60 seconds

1 cup = 8 fluid ounces  
 1 pint = 2 cups  
 1 quart = 2 pints  
 1 gallon = 4 quarts

1 liter = 1000 milliliters = 1000 cubic centimeters  
 1 meter = 100 centimeters = 1000 millimeters  
 1 kilometer = 1000 meters  
 1 gram = 1000 milligrams  
 1 kilogram = 1000 grams

1 pound = 16 ounces  
 1 ton = 2,000 pounds



## Equation of a Line

### Slope-Intercept Form:

$$y = mx + b$$

where  $m$  = slope and  $b$  = y-intercept

## Slope of a Line

Let  $(x_1, y_1)$  and  $(x_2, y_2)$  be two points in the plane.

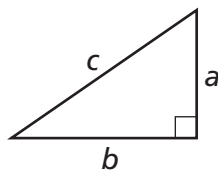
$$\text{slope} = \frac{\text{change in } y}{\text{change in } x} = \frac{y_2 - y_1}{x_2 - x_1} \text{ where } x_2 \neq x_1$$

## Distance Formula

$$d = rt$$

distance = rate  $\times$  time

## Pythagorean Theorem



$$a^2 + b^2 = c^2$$

## Temperature Formulas

$$^{\circ}\text{C} = \frac{5}{9}(\text{F} - 32)$$

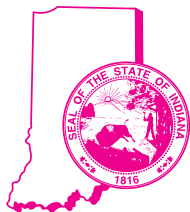
$$^{\circ}\text{Celsius} = \frac{5}{9} \times (^{\circ}\text{Fahrenheit} - 32)$$

$$^{\circ}\text{F} = \frac{9}{5}\text{C} + 32$$

$$^{\circ}\text{Fahrenheit} = \frac{9}{5} \times ^{\circ}\text{Celsius} + 32$$

# Response Book for Grade 8

## English/Language Arts • Mathematics



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